

Frequency Synthesizer

KSN-EDR7656/2

Typical Performance Data

FREQ. (MHz)	POWER OUTPUT (dBm)			HARMONICS (dBc)						VCO CURRENT (mA)			PLL CURRENT (mA)		
				F2			F3								
	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C
710.0	1.99	1.38	0.51	-27.41	-30.80	-33.01	-41.39	-45.37	-49.67	23.76	25.06	25.69	6.92	8.04	9.52
719.5	1.91	1.52	0.72	-29.08	-32.39	-34.53	-41.06	-44.49	-47.34	23.79	25.08	25.74	6.92	8.06	9.51
720.0	1.90	1.53	0.84	-29.18	-32.49	-35.65	-41.10	-44.48	-46.30	23.79	25.09	25.76	6.89	8.04	9.54
729.0	1.91	1.66	0.91	-30.47	-33.71	-36.33	-41.10	-43.79	-45.78	23.83	25.12	25.78	6.93	8.10	9.55
738.5	1.97	1.77	1.02	-31.48	-34.15	-36.71	-41.00	-43.13	-44.38	23.85	25.13	25.80	6.94	8.11	9.58
748.0	2.06	1.79	1.02	-32.94	-35.22	-37.43	-41.41	-43.09	-44.10	23.85	25.12	25.81	6.94	8.12	9.59
757.5	2.20	1.70	0.92	-32.81	-35.07	-37.36	-41.79	-43.40	-44.32	23.78	25.10	25.82	6.95	8.12	9.58
767.0	2.03	1.50	0.85	-33.03	-35.48	-37.53	-42.90	-44.41	-44.99	23.67	25.08	25.82	6.95	8.12	9.59
776.5	1.61	1.29	0.75	-33.01	-35.36	-37.47	-44.71	-45.79	-45.97	23.60	25.05	25.81	6.95	8.13	9.61
786.0	1.23	1.04	0.60	-33.98	-36.00	-37.55	-46.24	-47.19	-46.42	23.57	25.03	25.80	6.95	8.13	9.59
793.0	0.94	0.84	0.43	-34.54	-36.31	-37.77	-48.35	-48.62	-47.91	23.53	25.01	25.80	6.96	8.14	9.62
795.5	0.88	0.77	0.42	-34.63	-36.39	-37.78	-48.52	-48.54	-48.03	23.53	25.00	25.79	6.95	8.14	9.61
805.0	0.55	0.52	0.25	-35.51	-37.13	-38.21	-50.62	-50.24	-48.72	23.51	24.99	25.79	6.96	8.14	9.63

FREQ. (MHz)	PHASE NOISE (dBc/Hz) @ OFFSETS														
	-45 °C					+25°C					+85 °C				
	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz	100Hz	1kHz	10kHz	100kHz	1MHz
710.0	-86.48	-83.99	-90.21	-105.58	-137.20	-83.54	-83.90	-91.30	-110.70	-141.59	-85.06	-83.62	-90.11	-118.95	-140.04
719.5	-81.67	-84.23	-91.36	-105.79	-145.82	-82.56	-84.02	-92.81	-109.65	-143.12	-83.35	-81.82	-91.74	-110.53	-135.79
720.0	-83.55	-83.65	-91.60	-106.50	-139.29	-83.10	-83.47	-92.93	-110.44	-142.15	-85.62	-83.55	-92.99	-116.51	-148.27
729.0	-82.67	-84.41	-92.95	-112.06	-141.47	-86.44	-83.99	-94.26	-110.95	-140.44	-87.04	-82.20	-93.49	-125.01	-139.08
738.5	-82.65	-84.16	-93.94	-113.92	-140.46	-86.15	-82.70	-95.22	-111.68	-142.43	-86.43	-81.42	-94.77	-117.59	-139.99
748.0	-89.36	-83.16	-94.87	-127.58	-137.70	-87.40	-82.17	-96.14	-122.17	-142.98	-87.53	-82.62	-95.04	-123.50	-136.74
757.5	-86.99	-83.36	-96.56	-118.42	-141.34	-87.84	-84.24	-95.27	-122.04	-143.93	-85.22	-82.88	-94.64	-119.29	-141.01
767.0	-86.53	-83.48	-95.63	-109.78	-141.98	-87.42	-81.83	-96.51	-125.95	-143.13	-85.79	-82.49	-95.93	-122.64	-143.62
776.5	-87.93	-81.03	-96.84	-120.33	-140.99	-87.60	-82.00	-97.06	-123.56	-145.44	-85.69	-82.30	-96.68	-113.97	-139.11
786.0	-85.13	-81.30	-97.05	-117.00	-145.17	-85.89	-81.67	-96.99	-116.55	-142.04	-86.45	-80.99	-96.99	-124.05	-135.42
793.0	-86.67	-81.97	-97.25	-118.37	-144.36	-85.17	-82.55	-97.14	-117.15	-145.30	-82.99	-81.16	-96.96	-113.69	-142.33
795.5	-84.79	-82.25	-97.16	-120.76	-144.16	-83.99	-81.76	-97.31	-120.14	-144.22	-84.96	-81.79	-97.01	-118.45	-139.20
805.0	-87.07	-81.98	-96.71	-125.57	-140.74	-81.59	-80.33	-97.98	-121.86	-145.29	-79.46	-76.72	-98.34	-116.84	-141.79

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
 C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"). Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCStore/terms.jsp



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KSN-EDR7656/2

Typical Performance Data

COMPARISON SPURIOUS ORDER	COMPARISON SPURIOUS @Fcarrier 720 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 756 MHz± (n*Fcomparison) (dBc) NOTE 1			COMPARISON SPURIOUS @Fcarrier 793 MHz± (n*Fcomparison) (dBc) NOTE 1		
	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C
-5	-90.25	-91.47	-100.29	-95.74	-100.20	-100.78	-103.76	-97.65	-99.10
-4	-87.93	-90.28	-97.15	-96.37	-102.08	-97.74	-93.76	-92.95	-97.14
-3	-86.97	-88.77	-93.21	-92.74	-98.24	-102.00	-93.40	-92.95	-93.96
-2	-82.34	-83.93	-90.48	-95.17	-97.34	-95.99	-90.10	-92.18	-87.90
-1	-75.54	-78.45	-87.61	-89.06	-91.86	-87.73	-79.90	-86.36	-82.63
0 ^{note 2}	-	-	-	-	-	-	-	-	-
+1	-75.74	-78.28	-87.07	-89.18	-91.79	-87.90	-80.39	-86.41	-81.93
+2	-82.53	-84.04	-90.29	-95.23	-97.50	-95.87	-91.31	-92.40	-90.69
+3	-87.33	-88.77	-92.75	-92.89	-98.32	-102.50	-94.01	-92.85	-93.24
+4	-88.28	-90.23	-96.68	-96.14	-101.49	-98.02	-95.02	-93.14	-95.68
+5	-90.32	-91.62	-98.98	-95.52	-100.46	-101.33	-105.80	-98.68	-98.94

Note 1: Comparison frequency 100 kHz

Note 2: All spurs are referenced to carrier signal (n=0).

REFERENCE SPURIOUS ORDER	REFERENCE SPURIOUS @Fcarrier 720 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 756 MHz± (n*Freference) (dBc) NOTE 3			REFERENCE SPURIOUS @Fcarrier 793 MHz± (n*Freference) (dBc) NOTE 3		
	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C	-45 °C	+25°C	+85 °C
-5	-113.23	-123.76	-124.69	-127.46	-126.45	-125.44	-127.33	-127.75	-127.95
-4	-117.56	-123.18	-120.99	-122.87	-123.81	-125.49	-125.38	-127.53	-128.32
-3	-106.79	-114.55	-112.34	-122.29	-127.96	-129.38	-122.28	-127.57	-127.15
-2	-114.01	-115.05	-114.53	-116.74	-115.06	-115.85	-113.71	-116.01	-119.40
-1	-94.23	-99.85	-97.67	-108.99	-105.62	-105.02	-105.61	-104.14	-106.09
0 ^{note 4}	-	-	-	-	-	-	-	-	-
+1	-97.39	-105.55	-100.30	-107.71	-104.93	-104.08	-104.05	-103.03	-104.52
+2	-104.65	-113.33	-113.58	-123.02	-119.81	-118.61	-118.98	-119.51	-124.22
+3	-105.43	-109.38	-111.19	-120.40	-123.05	-124.94	-118.74	-122.00	-120.99
+4	-110.44	-119.79	-116.19	-120.87	-125.35	-122.88	-129.61	-127.29	-129.33
+5	-111.08	-113.41	-119.26	-122.86	-128.86	-128.13	-129.39	-128.36	-128.82

Note 3: Reference frequency 10 MHz

Note 4: All spurs are referenced to carrier signal (n=0).

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